RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/554.068
Source:	1FWO
Date Processed by STIC:	10/2/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial	Number: 10/554, 068	CRF Edit Date: 10/2/06 Edited by: 10/2/06
	Realigned nucleic acid/amino acid numbers/text text "wrapped" to the next line	in cases where the sequence
<u> </u>	Corrected the SEQ ID NO. Sequence numbers e	dited were:
	Inserted or corrected a nucleic number at the end NO's edited:	d of a nucleic line. SEQ ID
	Deleted: invalid beginning/end-of-file text;	page numbers
	Inserted mandatory headings/numeric identifiers	s, specifically:
	Moved responses to same line as heading/numeri	c identifier, specifically:
	Other: Seguera 28-corrected the	spelling of "position"

Revised 09/09/2003



IFWO

RAW SEQUENCE LISTING DATE: 10/02/2006
PATENT APPLICATION: US/10/554,068 TIME: 11:30:02

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

```
3 <110> APPLICANT: Kadler, Karl
        Bulleid, Neil
         Ashcroft, Gillian
 7 <120> TITLE OF INVENTION: Modified Peptides and Their Uses
 9 <130> FILE REFERENCE: 17695-0002
11 <140> CURRENT APPLICATION NUMBER: US 10/554,068
12 <141> CURRENT FILING DATE: 2005-10-21
14 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/00171
15 <151> PRIOR FILING DATE: 2004-04-21
17 <150> PRIOR APPLICATION NUMBER: GB 0309064.4
18 <151> PRIOR FILING DATE: 2003-04-22
20 <160> NUMBER OF SEQ ID NOS: 28
22 <170> SOFTWARE: PatentIn version 3.3
24 <210> SEO ID NO: 1
25 <211> LENGTH: 20
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Oligonucleotide for PCR
32 <400> SEQUENCE: 1
33 aattaaccct cactaaaggg
                                                                          20
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 31
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Oligonucleotide for PCR
44 <400> SEQUENCE: 2
                                                                          31
45 acagagatgt tgccaaaata atagtgggat g
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 31
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Oligonucleotide for PCR
56 <400> SEQUENCE: 3
57 tattttggca acatctctgt ccttgtttct c
                                                                          31
60 <210> SEQ ID NO: 4
61 <211> LENGTH: 31
62 <212> TYPE: DNA
63 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Oligonucleotide for PCR
```

RAW SEQUENCE LISTING DATE: 10/02/2006 PATENT APPLICATION: US/10/554,068 TIME: 11:30:02

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

CO. ACC. CHOUSENCE, A	
68 <400> SEQUENCE: 4 69 cttgaccatt agcatcttgc cacaccttca c	31
72 <210> SEQ ID NO: 5	31
72 <210 SEQ 10 NO. 3 73 <211 > LENGTH: 31	
74 <212> TYPE: DNA	
75 <213> ORGANISM: Artificial Sequence	
-	
77 <220> FEATURE:	•
78 <223> OTHER INFORMATION: Oligonucleotide for PCR	
80 <400> SEQUENCE: 5	21
81 gcaagatgct aatggtcaag gacctcaagg c	31
84 <210> SEQ ID NO: 6	
85 <211> LENGTH: 20 86 <212> TYPE: DNA	
87 <213> ORGANISM: Artificial Sequence	
89 <220> FEATURE:	
90 <223> OTHER INFORMATION: Oligonucleotide for PCR	
92 <400> SEQUENCE: 6	20
93 agaccctgca ggtccaactt	20
96 <210> SEQ ID NO: 7	
97 <211> LENGTH: 32	
98 <212> TYPE: DNA	
99 <213> ORGANISM: Artificial Sequence 101 <220> FEATURE:	
102 <223> OTHER INFORMATION: Oligonucleotide for PCR 104 <400> SEQUENCE: 7	
105 gttgtaaaac ggcggccgct gaattgtaat ac	32
108 <210> SEQ ID NO: 8	32
109 <211> LENGTH: 32	
110 <212> TYPE: DNA	
111 <213> ORGANISM: Artificial Sequence	
113 <220> FEATURE:	
114 <223> OTHER INFORMATION: Oligonucleotide for PCR	
116 <400> SEQUENCE: 8	
117 gtattacaat tcagcggccg ccgttttaca ac	32
120 <210> SEQ ID NO: 9	32
121 <211> LENGTH: 5853	
122 <212> TYPE: DNA	
123 <213> ORGANISM: Artificial Sequence	
125 <220> FEATURE:	
126 <223> OTHER INFORMATION: DNA molecule based on procollagen type III	N-propeptide.
127 Sequence prior to N100 replaced with the sequence for the G123	
domains of the alpha3 chain of laminin-5 whilst retaining the	
129 collagen III signal sequence.	
131 <400> SEQUENCE: 9	
132 atgatgaget ttgtgcaaaa ggggagetgg ctactteteg etetgettea teccaetatt	60
134 attttggcaa catctctgtc cttgtttctc caaaggccca actcaagaga aaatgggggt	120
136 actgagaata tgtttgtgat gtaccttgga aataaagatg cctcccggga ctacatcggc	180
138 atggcagttg tggatggcca gctcacctgt gtctacaacc tgggggaccg tgaggctgaa	240
140 ctccaagtgg accagatctt gaccaagagt gagactaagg aggcagttat ggatcgggtg	300

RAW SEQUENCE LISTING DATE: 10/02/2006
PATENT APPLICATION: US/10/554,068 TIME: 11:30:02

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

142	aaatttcaga	gaatttatca	gtttgcaagg	cttaattaca	ccaaaggagc	cacatccagt	360
144	aaaccagaaa	cacccggagt	ctatgacatg	gatggtagaa	atagcaatac	actccttaat	420
146	ttggatcctg	aaaatgttgt	attttatgtt	ggaggttacc	cacctgattt	taaacttccc	480
148	agtcgactaa	gtttccctcc	atacaaaggt	tgtattgaat	tagatgacct	caatgaaaat	540
150	gttctgagct	tgtacaactt	caaaaaaaca	ttcaatctca	acacaactga	agtggagcct	600
152	tgtagaagga	ggaaggaaga	gtcagacaaa	aattattttg	aaggtacggg	ctatgctcga	660
154	gttccaactc	aaccacatgc	tcccatccca	acctttggac	agacaattca	gaccaccgtg	720
156	gatagaggct	tgctgttctt	tgcagaaaac	ggggatcgct	tcatatctct	aaatatagaa	780
158	gatggcaagc	tcatggtgag	atacaaactg	aattcagagc	taccaaaaga	gagaggagtt	840
160	ggagacgcca	taaacaacgg	cagagaccat	tcgattcaga	tcaaaattgg	aaaactccaa	900
162	aagcgtatgt	ggataaatgt	ggacgttcaa	aacactataa	ttgatggtga	agtatttgat	960
164	ttcagcacat	attatctggg	aggaattcca	attgcaatca	gggaaagatt	taacatttct	1020
166	acgcctgctt	tccgaggctg	catgaaaaat	ttgaagaaaa	ccagtggtgt	cgttagattg	1080
168	aatgatactg	tgggagtaac	caaaaagtgc	tcggaagact	ggaagcttgt	gcgatctgcc	1140
170	tcattctcca	gaggaggaca	attgagtttc	actgatttgg	gcttaccacc	tactgaccac	1200
172	ctccaggcct	catttggatt	tcagaccttt	caacccagtg	gcatattatt	agatcatcag	1260
174	acatggacaa	ggaacctgca	ggtcactctg	gaagatggtt	acattgaatt	gagcaccagc	1320
176	gatagcggcg	gcccaatttt	taaatctcca	cagacgtata	tggatggttt	actgcattat	1380
178	gtatctgtaa	taagcgacaa	ctctggacta	cggcttctca	tcgatgacca	gcttctgaga	1440
180	aatagcaaaa	ggctaaaaca	catttcaagt	tcccggcagt	ctctgcgtct	gggcgggagc	1500
182	aattttgagg	gttgtattag	caatgttttt	gtccagaggt	tatcactgag	tcctgaagtc	1560
184	ctagatttga	ccagtaactc	tctcaagaga	gatgtgtccc	tgggaggctg	cagtttaaac	1620
186	aaaccacctt	ttctaatgtt	gcttaaaggt	tctaccaggt	ttaacaagac	caagactttt	1680
188	cgtatcaacc	agctgttgca	ggacacacca	gtggcctccc	caaggagcgt	gaaggtgtgg	1740
190	caagatgcta	atggtcaagg	acctcaaggc	cccaagggag	atccaggccc	tcctggtatt	1800
192	cctgggagaa	atggtgaccc	tggtattcca	ggacaaccag	ggtcccctgg	ttctcctggc	1860
194	ccccctggaa	tctgtgaatc	atgccctact	ggtcctcaga	actattctcc	ccagtatgat	1920
196	tcatatgatg	tcaagtctgg	agtagcagta	ggaggactcg	caggctatcc	tggaccagct	1980
198	ggccccccag	gccctcccgg	tccccctggt	acatctggtc	atcctggttc	ccctggatct	2040
200	ccaggatacc	aaggaccccc	tggtgaacct	gggcaagctg	gtccttcagg	ccctccagga	2100
			atctggtcct				2160
			attgcctgga				2220
206	cctggattcc	ctggtatgaa	aggacacaga	ggcttcgatg	gacgaaatgg	agaaaagggt	2280
			aaagggtgaa				2340
			ggctcctggt				2400
			cggtgctcga				2460
			ccctggatcc				2520
			tgcccctgga				2580
			tggccctcct				2640
			tcctggagct				2700
			tgctcctgga				2760
			cggaccacgt				2820
			agatggcaag				2880
			agaaaggggt				2940
			gggtcctgct				3000
			acctggcaga				3060
			aggaccagga				3120
			aggtcctcct				3180
238	gtcatgggct	tccccggtcc	taaaggaaat	gatggtgctc	ctggtaagaa	tggagaacga	3240

RAW SEQUENCE LISTING DATE: 10/02/2006
PATENT APPLICATION: US/10/554,068 TIME: 11:30:02

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

```
3300
240 ggtggccctg gaggacctgg ccctcagggt cctcctggaa agaatggtga aactggacct
                                                                         3360
242 caaggacccc cagggcctac tgggcctggt ggtgacaaag gagacacagg accccctggt
                                                                         3420
244 ccacaaggat tacaaggctt gcctggtaca ggtggtcctc caggagaaaa tggaaaacct
246 ggggaaccag gtccaaaggg tgatgccggt gcacctggag ctccaggagg caagggtgat
                                                                         3480
248 gctggtgccc ctggtgaacg tggacctcct ggattggcag gggccccagg acttagaggt
                                                                         3540
                                                                         3600
250 ggagetggte eccetggtee egaaggagga aagggtgetg etggteetee tgggeeacet
252 ggtgctgctg gtactcctgg tctgcaagga atgcctggag aaagaggagg tcttggaagt
                                                                         3660
254 cctggtccaa agggtgacaa gggtgaacca ggcggcccag gtgctgatgg tgtcccaggg
                                                                         3720
                                                                         3780
256 aaagatggcc caaggggtcc tactggtcct attggtcctc ctggcccagc tggccagcct
                                                                         3840
258 ggagataagg gtgaaggtgg tgcccccgga cttccaggta tagctggacc tcgtggtagc
260 cctggtgaga gaggtgaaac tggccctcca ggacctgctg gtttccctgg tgctcctgga
                                                                         3900
262 cagaatggtg aacctggtgg taaaggagaa agaggggctc cgggtgagaa aggtgaagga
                                                                         3960
264 ggccctcctg gagttgcagg accccctgga ggttctggac ctgctggtcc tcctggtccc
                                                                         4020
266 caaggtgtca aaggtgaacg tggcagtcct ggtggacctg gtgctgctgg cttccctggt
                                                                         4080
268 gctcgtggtc ttcctggtcc tcctggtagt aatggtaacc caggaccccc aggtcccagc
                                                                         4140
270 ggttctccag gcaaggatgg gcccccaggt cctgcgggta acactggtgc tcctggcagc
                                                                         4200
                                                                         4260
272 cctggagtgt ctggaccaaa aggtgatgct ggccaaccag gagagaaggg atcgcctggt
274 gcccagggcc caccaggagc tccaggccca cttgggattg ctgggatcac tggagcacgg
                                                                         4320
276 ggtcttgcag gaccaccagg catgccaggt cctaggggaa gccctggccc tcagggtgtc
                                                                         4380
                                                                         4440
278 aagggtgaaa gtgggaaacc aggagctaac ggtctcagtg gagaacgtgg tccccctgga
280 ccccagggtc ttcctggtct ggctggtaca gctggtgaac ctggaagaga tggaaaccct
                                                                         4500
                                                                         4560
282 ggatcagatg gtcttccagg ccgagatgga tctcctggtg gcaagggtga tcgtggtgaa
284 aatggetete etggtgeece tggegeteet ggteatecag geceacetgg teetgteggt
                                                                         4620
                                                                         4680
286 ccagctggaa agagtggtga cagaggagaa agtggccctg ctggccctgc tggtgctccc
                                                                         4740
288 ggtcctgctg gttcccgagg tgctcctggt cctcaaggcc cacgtggtga caaaggtgaa
290 acaggtgaac gtggagctgc tggcatcaaa ggacatcgag gattccctgg taatccaggt
292 gccccaggtt ctccaggccc tgctggtcag cagggtgcaa tcggcagtcc aggacctgca
                                                                         4860
                                                                         4920
294 ggccccagag gacctgttgg acccagtgga cctcctggca aagatggaac cagtggacat
296 ccaggtccca ttggaccacc agggcctcga ggtaacagag gtgaaagagg atctgagggc
                                                                         4980
                                                                         5040
298 tececaggee acceaggea accaggeet cetggacete etggtgeece tggteettge
                                                                         5100
300 tgtggtggtg ttggagccgc tgccattgct gggattggag gtgaaaaagc tggcggtttt
302 gccccgtatt atggagatga accaatggat ttcaaaaatca acaccgatga gattatgact
                                                                         5160
304 tcactcaagt ctgttaatgg acaaatagaa agcctcatta gtcctgatgg ttctcgtaaa
                                                                         5220
306 aacccegeta gaaactgeag agacetgaaa ttetgeeate etgaaeteaa gagtggagaa
                                                                         5280
308 tactgggttg accetaacca aggatgeaaa ttggatgeta teaaggtatt etgtaatatg
                                                                         5340
                                                                         5400
310 gaaactgggg aaacatgcat aagtgccaat cctttgaatg ttccacggaa acactggtgg
312 acagatteta gtgetgagaa gaaacaegtt tggtttggag agtecatgga tggtggtttt
                                                                         5460
314 cagtttagct acggcaatcc tgaacttcct gaagatgtcc ttgatgtgca gctggcattc
                                                                         5520
                                                                         5580
316 cttcgacttc tctccagccg agcttcccag aacatcacat atcactgcaa aaatagcatt
                                                                         5640
318 gcatacatgg atcaggccag tggaaatgta aagaaggccc tgaagctgat ggggtcaaat
320 gaaggtgaat tcaaggctga aggaaatagc aaattcacct acacagttct ggaggatggt
                                                                         5700
                                                                         5760
322 tgcacgaaac acactgggga atggagcaaa acagtctttg aatatcgaac acgcaaggct
324 gtgagactac ctattgtaga tattgcaccc tatgacattg gtggtcctga tcaagaattt
                                                                         5820
326 ggtgtggacg ttggccctgt ttgcttttta taa
                                                                         5853
329 <210> SEQ ID NO: 10
330 <211> LENGTH: 1950
```

332 <213> ORGANISM: Artificial Sequence

331 <212> TYPE: PRT

334 <220> FEATURE:

RAW SEQUENCE LISTING DATE: 10/02/2006
PATENT APPLICATION: US/10/554,068 TIME: 11:30:02

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

335 <223> OTHER INFORMATION: Sequence of the modified pro-alpha chain 337 <400> SEQUENCE: 10 339 Met Met Ser Phe Val Gln Lys Gly Ser Trp Leu Leu Leu Ala Leu Leu 343 His Pro Thr Ile Ile Leu Ala Thr Ser Leu Ser Leu Phe Leu Gln Arg 20 25 347 Pro Asn Ser Arg Glu Asn Gly Gly Thr Glu Asn Met Phe Val Met Tyr 35 40 351 Leu Gly Asn Lys Asp Ala Ser Arg Asp Tyr Ile Gly Met Ala Val Val 355 Asp Gly Gln Leu Thr Cys Val Tyr Asn Leu Gly Asp Arg Glu Ala Glu 70 359 Leu Gln Val Asp Gln Ile Leu Thr Lys Ser Glu Thr Lys Glu Ala Val 363 Met Asp Arg Val Lys Phe Gln Arg Ile Tyr Gln Phe Ala Arg Leu Asn 100 105 110 367 Tyr Thr Lys Gly Ala Thr Ser Ser Lys Pro Glu Thr Pro Gly Val Tyr 120 371 Asp Met Asp Gly Arg Asn Ser Asn Thr Leu Leu Asn Leu Asp Pro Glu 135 375 Asn Val Val Phe Tyr Val Gly Gly Tyr Pro Pro Asp Phe Lys Leu Pro 376 145 150 155 379 Ser Arg Leu Ser Phe Pro Pro Tyr Lys Gly Cys Ile Glu Leu Asp Asp 170 383 Leu Asn Glu Asn Val Leu Ser Leu Tyr Asn Phe Lys Lys Thr Phe Asn 180 185 387 Leu Asn Thr Thr Glu Val Glu Pro Cys Arg Arg Arg Lys Glu Glu Ser 391 Asp Lys Asn Tyr Phe Glu Gly Thr Gly Tyr Ala Arg Val Pro Thr Gln 210 215 220 395 Pro His Ala Pro Ile Pro Thr Phe Gly Gln Thr Ile Gln Thr Thr Val 399 Asp Arg Gly Leu Leu Phe Phe Ala Glu Asn Gly Asp Arg Phe Ile Ser 245 250 403 Leu Asn Ile Glu Asp Gly Lys Leu Met Val Arg Tyr Lys Leu Asn Ser 260 265 407 Glu Leu Pro Lys Glu Arg Gly Val Gly Asp Ala Ile Asn Asn Gly Arg 275 280 411 Asp His Ser Ile Gln Ile Lys Ile Gly Lys Leu Gln Lys Arg Met Trp 295 415 Ile Asn Val Asp Val Gln Asn Thr Ile Ile Asp Gly Glu Val Phe Asp 310 315 419 Phe Ser Thr Tyr Tyr Leu Gly Gly Ile Pro Ile Ala Ile Arg Glu Arg 420 325 330 423 Phe Asn Ile Ser Thr Pro Ala Phe Arg Gly Cys Met Lys Asn Leu Lys 345 427 Lys Thr Ser Gly Val Val Arg Leu Asn Asp Thr Val Gly Val Thr Lys 355 360 431 Lys Cys Ser Glu Asp Trp Lys Leu Val Arg Ser Ala Ser Phe Ser Arg

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/554,068

DATE: 10/02/2006 TIME: 11:30:03

FYI

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:28; Xaa Pos. 2,3,5,7,8,10,11

VERIFICATION SUMMARY

DATE: 10/02/2006

PATENT APPLICATION: US/10/554,068

TIME: 11:30:03

Input Set : N:\AMC\PTO.AMC.txt

Output Set: N:\CRF4\10022006\J554068.raw

L:2217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0

Raw Sequence Listing before editing (for reference only)



IFWO

RAW SEQUENCE LISTING DATE: 09/29/2006
PATENT APPLICATION: US/10/554,068 TIME: 10:16:06

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

```
3 <110> APPLICANT: Kadler, Karl
       Bulleid, Neil
        Ashcroft, Gillian
 7 <120> TITLE OF INVENTION: Modified Peptides and Their Uses
 9 <130> FILE REFERENCE: 17695-0002
11 <140> CURRENT APPLICATION NUMBER: US 10/554,068
12 <141> CURRENT FILING DATE: 2005-10-21
14 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/00171
15 <151> PRIOR FILING DATE: 2004-04-21
17 <150> PRIOR APPLICATION NUMBER: GB 0309064.4
                                                         Does Not Comply
18 <151> PRIOR FILING DATE: 2003-04-22
                                                        Corrected Diskette Needed
20 <160> NUMBER OF SEQ ID NOS: 28
22 <170> SOFTWARE: PatentIn version 3.3
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 20
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Oligonucleotide for PCR
32 <400> SEQUENCE: 1
33 aattaaccct cactaaaggg
                                                                          20
36 <210> SEO ID NO: 2
37 <211> LENGTH: 31
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Oligonucleotide for PCR
44 <400> SEQUENCE: 2
                                                                          31
45 acagagatgt tgccaaaata atagtgggat g
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 31
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Oligonucleotide for PCR
56 <400> SEQUENCE: 3
57 tattttggca acatctctgt ccttgtttct c
                                                                          31
60 <210> SEO ID NO: 4
61 <211> LENGTH: 31
62 <212> TYPE: DNA
63 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
```

66 <223> OTHER INFORMATION: Oligonucleotide for PCR

RAW SEQUENCE LISTING DATE: 09/29/2006
PATENT APPLICATION: US/10/554,068 TIME: 10:16:06

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

68 <400> SEQUENCE: 4	
69 cttgaccatt agcatcttgc cacaccttca c	31
72 <210> SEQ ID NO: 5	
73 <211> LENGTH: 31	
74 <212> TYPE: DNA	
75 <213> ORGANISM: Artificial Sequence	
77 <220> FEATURE:	
78 <223> OTHER INFORMATION: Oligonucleotide for PCR	
80 <400> SEQUENCE: 5	
81 gcaagatgct aatggtcaag gacctcaagg c	31
84 <210> SEQ ID NO: 6	
85 <211> LENGTH: 20	
86 <212> TYPE: DNA	
87 <213> ORGANISM: Artificial Sequence	
89 <220> FEATURE:	
90 <223> OTHER INFORMATION: Oligonucleotide for PCR	
92 <400> SEQUENCE: 6	
93 agaccetgea ggtecaactt	20
96 <210> SEQ ID NO: 7	
97 <211> LENGTH: 32	
98 <212> TYPE: DNA	
99 <213> ORGANISM: Artificial Sequence	
101 <220> FEATURE:	
102 <223> OTHER INFORMATION: Oligonucleotide for PCR	
104 <400> SEQUENCE: 7	
105 gttgtaaaac ggcggccgct gaattgtaat ac	32
108 <210> SEQ ID NO: 8	
109 <211> LENGTH: 32	
110 <212> TYPE: DNA	
111 <213> ORGANISM: Artificial Sequence	
113 <220> FEATURE:	
114 <223> OTHER INFORMATION: Oligonucleotide for PCR	
116 <400> SEQUENCE: 8	
117 gtattacaat tcagcggccg ccgttttaca ac	32
120 <210> SEQ ID NO: 9	
121 <211> LENGTH: 5853	
122 <212> TYPE: DNA	
123 <213> ORGANISM: Artificial Sequence	
125 <220> FEATURE:	
126 <223> OTHER INFORMATION: DNA molecule based on procollagen type	III N-propeptide.
127 Sequence prior to N100 replaced with the sequence for the	
domains of the alpha3 chain of laminin-5 whilst retaining	
129 collagen III signal sequence.	
131 <400> SEQUENCE: 9	
132 atgatgaget ttgtgcaaaa ggggagetgg ctaetteteg etetgettea teccaeta	tt 60
134 attttggcaa catctctgtc cttgtttctc caaaggccca actcaagaga aaatgggg	
136 actgagaata tgtttgtgat gtaccttgga aataaagatg cctcccggga ctacatcg	_
138 atggcagttg tggatggcca gctcacctgt gtctacaacc tgggggaccg tgaggctg	
140 ctccaagtgg accagatett gaccaagagt gagactaagg aggcagttat ggateggg	
	- -

RAW SEQUENCE LISTING DATE: 09/29/2006
PATENT APPLICATION: US/10/554,068 TIME: 10:16:06

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

142	aaatttcaga	gaatttatca	gtttgcaagg	cttaattaca	ccaaaggagc	cacatccagt	360
144	aaaccagaaa	cacccggagt	ctatgacatg	gatggtagaa	atagcaatac	actccttaat	420
146	ttggatcctg	aaaatgttgt	attttatgtt	ggaggttacc	cacctgattt	taaacttccc	480
148	agtcgactaa	gtttccctcc	atacaaaggt	tgtattgaat	tagatgacct	caatgaaaat	540
150	gttctgagct	tgtacaactt	caaaaaaaca	ttcaatctca	acacaactga	agtggagcct	600
152	tgtagaagga	ggaaggaaga	gtcagacaaa	aattattttg	aaggtacggg	ctatgctcga	660
154	gttccaactc	aaccacatgc	tcccatccca	acctttggac	agacaattca	gaccaccgtg	720
156	gatagaggct	tgctgttctt	tgcagaaaac	ggggatcgct	tcatatctct	aaatatagaa	. 780
		tcatggtgag					840
160	ggagacgcca	taaacaacgg	cagagaccat	tcgattcaga	tcaaaattgg	aaaactccaa	900
		ggataaatgt					960
164	ttcagcacat	attatctggg	aggaattcca	attgcaatca	gggaaagatt	taacatttct	1020
166	acgcctgctt	tccgaggctg	catgaaaaat	ttgaagaaaa	ccagtggtgt	cgttagattg	1080
		tgggagtaac					1140
		gaggaggaca					1200
		catttggatt					1260
		ggaacctgca					1320
		gcccaatttt					1380
		taagcgacaa					1440
		ggctaaaaca					1500
		gttgtattag					1560
		ccagtaactc					1620
		ttctaatgtt					1680
		agctgttgca					1740
		atggtcaagg					1800
		atggtgaccc					1860
		tctgtgaatc					1920
		tcaagtctgg					1980
		gccctcccgg					2040
		aaggaccccc					2100
		ctataggtcc					2160
		gagagcgagg					2220
		ctggtatgaa					2280
		ctcctggatt					2340
		gtccaagagg					2400
		ggggtaatga					2460
		ctgccggatt					2520
		gttcaaatgg					2580
		aaggtcctcc					2640
		ccgctggcat					2700 2760
		gtgctaatgg					
		aaggagagcc					2820 2880
		ctaaaggcga					2940
		gagctgcagg					3000
		caggagaaaa					3060
		ctgctggaga gaagtccagg					3120
							3120
		gtggtcgacc tccccggtcc					3240
230	greatygyet	ccccggccc	caaayyaaat	gatggtgctc	ccygcaayaa	rygagaacya	3240

DATE: 09/29/2006 RAW SEQUENCE LISTING TIME: 10:16:06 PATENT APPLICATION: US/10/554,068

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

```
240 ggtggccctg gaggacctgg ccctcagggt cctcctggaa agaatggtga aactggacct
                                                                         3300
242 caaggacccc cagggcctac tgggcctggt ggtgacaaag gagacacagg accccctggt
                                                                         3360
244 ccacaaggat tacaaggctt gcctggtaca ggtggtcctc caggagaaaa tggaaaacct
                                                                         3420
246 ggggaaccag gtccaaaggg tgatgccggt gcacctggag ctccaggagg caagggtgat
                                                                         3480
248 gctggtgccc ctggtgaacg tggacctcct ggattggcag gggccccagg acttagaggt
                                                                         3540
250 ggagetggte eccetggtee egaaggagga aagggtgetg etggteetee tgggeeacet
                                                                         3600
252 ggtgctgctg gtactcctgg tctgcaagga atgcctggag aaagaggagg tcttggaagt
                                                                         3660
254 cetggtecaa agggtgacaa gggtgaacca ggeggeecag gtgetgatgg tgteecaggg
                                                                         3720
256 aaagatggcc caaggggtcc tactggtcct attggtcctc ctggcccagc tggccagcct
                                                                         3780
258 ggagataagg gtgaaggtgg tgcccccgga cttccaggta tagctggacc tcgtggtagc
                                                                         3840
260 cctggtgaga gaggtgaaac tggccctcca ggacctgctg gtttccctgg tgctcctgga
                                                                         3900
262 cagaatggtg aacctggtgg taaaggagaa agaggggctc cgggtgagaa aggtgaagga
                                                                         3960
264 ggccctcctg gagttgcagg accccctgga ggttctggac ctgctggtcc tcctggtccc
                                                                         4020
266 caaggtgtca aaggtgaacg tggcagtcct ggtggacctg gtgctgctgg cttccctggt
                                                                         4080
268 gctcgtggtc ttcctggtcc tcctggtagt aatggtaacc caggaccccc aggtcccagc
                                                                         4140
270 ggttctccag gcaaggatgg gcccccaggt cctgcgggta acactggtgc tcctggcagc
                                                                         4200
272 cctggagtgt ctggaccaaa aggtgatgct ggccaaccag gagagaaggg atcgcctggt
                                                                         4260
274 gcccagggcc caccaggagc tccaggccca cttgggattg ctgggatcac tggagcacgg
                                                                         4320
276 ggtcttgcag gaccaccagg catgccaggt cctaggggaa gccctggccc tcagggtgtc
                                                                         4380
278 aagggtgaaa gtgggaaacc aggagctaac ggtctcagtg gagaacgtgg tccccctgga
                                                                         4440
280 ccccagggtc ttcctggtct ggctggtaca gctggtgaac ctggaagaga tggaaaccct
                                                                         4500
282 ggatcagatg gtcttccagg ccgagatgga tctcctggtg gcaagggtga tcgtggtgaa
                                                                         4560
284 aatggetete etggtgeece tggegeteet ggteateeag geecaeetgg teetgteggt
                                                                         4620
286 ccagctggaa agagtggtga cagaggagaa agtggccctg ctggccctgc tggtgctccc
                                                                         4680
288 ggtcctgctg gttcccgagg tgctcctggt cctcaaggcc cacgtggtga caaaggtgaa
                                                                         4740
290 acaggtgaac gtggagctgc tggcatcaaa ggacatcgag gattccctgg taatccaggt
                                                                         4800
                                                                         4860
292 gecceaggtt etecaggece tgetggteag eagggtgeaa teggeagtee aggacetgea
294 ggccccagag gacctgttgg acccagtgga cctcctggca aagatggaac cagtggacat
296 ccaggtccca ttggaccacc agggcctcga ggtaacagag gtgaaagagg atctgagggc
                                                                         4980
298 tecceaggee acceaggea accaggeest estggacete etggtgeese tggteettge
                                                                         5040
300 tgtggtggtg ttggagccgc tgccattgct gggattggag gtgaaaaagc tggcggtttt
                                                                         5100
302 geceegtatt atggagatga accaatggat tteaaaatea acacegatga gattatgaet
                                                                         5160
304 tcactcaagt ctgttaatgg acaaatagaa agcctcatta gtcctgatgg ttctcgtaaa
                                                                         5220
306 aaccccgcta gaaactgcag agacctgaaa ttctgccatc ctgaactcaa gagtggagaa
                                                                         5280
308 tactqqqttq accctaacca aqqatqcaaa ttqqatqcta tcaaqqtatt ctqtaatatq
                                                                         5340
310 gaaactgggg aaacatgcat aagtgccaat cctttgaatg ttccacggaa acactggtgg
                                                                         5400
312 acagattcta gtgctgagaa gaaacacgtt tggtttggag agtccatgga tggtggtttt
                                                                         5460
314 cagtttaget acggeaatee tgaactteet gaagatgtee ttgatgtgea getggeatte
                                                                         5520
316 cttcgacttc tctccagccg agcttcccag aacatcacat atcactgcaa aaatagcatt
                                                                         5580
318 gcatacatgg atcaggccag tggaaatgta aagaaggccc tgaagctgat ggggtcaaat
                                                                         5640
320 gaaggtgaat tcaaggctga aggaaatagc aaattcacct acacagttct ggaggatggt
                                                                         5700
                                                                         5760
322 tgcacgaaac acactgggga atggagcaaa acagtctttg aatatcgaac acgcaaggct
324 gtgagactac ctattgtaga tattgcaccc tatgacattg gtggtcctga tcaagaattt
                                                                         5820
326 ggtgtggacg ttggccctgt ttgcttttta taa
                                                                         5853
```

- 329 <210> SEQ ID NO: 10
- 330 <211> LENGTH: 1950
- 331 <212> TYPE: PRT
- 332 <213> ORGANISM: Artificial Sequence
- 334 <220> FEATURE:

RAW SEQUENCE LISTING DATE: 09/29/2006
PATENT APPLICATION: US/10/554,068 TIME: 10:16:06

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

335 <223> OTHER INFORMATION: Sequence of the modified pro-alpha chain 337 <400> SEQUENCE: 10 339 Met Met Ser Phe Val Gln Lys Gly Ser Trp Leu Leu Leu Ala Leu Leu 340 1 5 343 His Pro Thr Ile Ile Leu Ala Thr Ser Leu Ser Leu Phe Leu Gln Arg 347 Pro Asn Ser Arg Glu Asn Gly Gly Thr Glu Asn Met Phe Val Met Tyr 351 Leu Gly Asn Lys Asp Ala Ser Arg Asp Tyr Ile Gly Met Ala Val Val 355 Asp Gly Gln Leu Thr Cys Val Tyr Asn Leu Gly Asp Arg Glu Ala Glu 70 75 359 Leu Gln Val Asp Gln Ile Leu Thr Lys Ser Glu Thr Lys Glu Ala Val 363 Met Asp Arg Val Lys Phe Gln Arg Ile Tyr Gln Phe Ala Arg Leu Asn 100 105 367 Tyr Thr Lys Gly Ala Thr Ser Ser Lys Pro Glu Thr Pro Gly Val Tyr 115 120 371 Asp Met Asp Gly Arg Asn Ser Asn Thr Leu Leu Asn Leu Asp Pro Glu 135 375 Asn Val Val Phe Tyr Val Gly Gly Tyr Pro Pro Asp Phe Lys Leu Pro 150 155 379 Ser Arg Leu Ser Phe Pro Pro Tyr Lys Gly Cys Ile Glu Leu Asp Asp 170 165 383 Leu Asn Glu Asn Val Leu Ser Leu Tyr Asn Phe Lys Lys Thr Phe Asn 180 185 387 Leu Asn Thr Thr Glu Val Glu Pro Cys Arg Arg Arg Lys Glu Glu Ser 200 391 Asp Lys Asn Tyr Phe Glu Gly Thr Gly Tyr Ala Arg Val Pro Thr Gln 210 215 395 Pro His Ala Pro Ile Pro Thr Phe Gly Gln Thr Ile Gln Thr Thr Val 230 399 Asp Arg Gly Leu Leu Phe Phe Ala Glu Asn Gly Asp Arg Phe Ile Ser 245 250 403 Leu Asn Ile Glu Asp Gly Lys Leu Met Val Arg Tyr Lys Leu Asn Ser 265 407 Glu Leu Pro Lys Glu Arg Gly Val Gly Asp Ala Ile Asn Asn Gly Arg 408 275 280 411 Asp His Ser Ile Gln Ile Lys Ile Gly Lys Leu Gln Lys Arg Met Trp 295 415 Ile Asn Val Asp Val Gln Asn Thr Ile Ile Asp Gly Glu Val Phe Asp 310 315 419 Phe Ser Thr Tyr Tyr Leu Gly Gly Ile Pro Ile Ala Ile Arg Glu Arg 325 330 423 Phe Asn Ile Ser Thr Pro Ala Phe Arg Gly Cys Met Lys Asn Leu Lys 345 427 Lys Thr Ser Gly Val Val Arg Leu Asn Asp Thr Val Gly Val Thr Lys 360 431 Lys Cys Ser Glu Asp Trp Lys Leu Val Arq Ser Ala Ser Phe Ser Arq

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/29/2006 PATENT APPLICATION: US/10/554,068 TIME: 10:16:07

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:28; Xaa Pos. 2,3,5,7,8,10,11

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/554,068

DATE: 09/29/2006 TIME: 10:16:07

Input Set : F:\17695-0002.txt

Output Set: N:\CRF4\09292006\J554068.raw

L:2217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0

```
<210>
      28
<211>
      11
<212>
      PRT
<213>
      Unknown
<220>
      Sequence typically found in small leucine-rich proteoglycans.
<223>
<220>
<221> MISC_FEATURE POSITION
      (2)..(3<u>)</u>
<222>
<223> X at (polition)2 or 3 may be any amino acid.
<220>
      MISC_FEATURE
<221>
<222>
      (5)..(5)
      X at polition 5 may be any amino acid.
<223>
<220>
<221>
      MISC FEATURE
<222>
      (7)..(8)
      X at polition 7 or 8 may be any amino acid.
<223>
<220>
<221> MISC_FEATURE
<222>
      (10)..(10)
<223> X at polition 10 may be any amino acid.
<220>
      MISC_FEATURE
<221>
       (11)...(11)
<222>
      X at polition 11 is selected from L and I only.
<400>
      28
Leu Xaa Xaa Leu Xaa Leu Xaa Xaa Asn Xaa Xaa
```